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DISCOVERIES AND CURRENT EVENTS *

Algeria : Desert Locusts *(Schistocerca gregaria)* (1).

10	February	1932 :	A medium-sized swarm of red locusts was observed at Adrar, flying east.
11	»	»	A large swarm of red locusts coming from the west alighted 60 km to the south of Timimoun (Deldoul) and departed again on the 12th in an easterly direction.
11	»	»	A small swarm was reported 95 km south-east of Brezina flying east (Géryville).
12	»	»	A small swarm of red locusts coming from the south-east alighted at Ghardaïa and departed on the 13th towards the north-west.
14	»	»	Locusts on the ground reported at Sidi-Abdelkader 10 km north-east of Ouargla.
14-15	»	»	Large swarms of red locusts seen in the regions of Colomb-Béchar and Kenadza, flying from west to east.
17	»	»	Locusts reported at Guerrara, 80 km north-east of Ghardaïa.
25	»	»	A sparse swarm of red locusts alighted in the region south-west of Ouargla.
28	»	»	A large swarm reported at Hassi Ouallen, 30 km south-west of El-Goléa flying towards this post.

Cirenaica : Plant Pests (2).

Earias chlorana and *E. anthophilana.* Caterpillars of these two species have destroyed numbers of cotton bolls in the experimental plots of the Agricultural Services of Cirenaica.

Acidalia fulminatella. In the garden of the Agricultural Section of Derna the writer has found caterpillars of this moth on the flowers of *Dianthus Caryophyllus.*

Phycita poteriella and *P. fuscopilella.* The control of the *Phycita* of the castor oil plant presents no difficulties : spraying the foliage till it is brown with a weak solution of ' Urania ' in 10 litres of water is very effective.

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* In this, as in the next chapter, the countries are arranged in French alphabetical order.

(1) Communication to the International Institute of Agriculture from the General Government of Algeria.

(2) Communication from the official correspondent of the Institute, Mr. Giorgio KRUGER, Entomologist, Royal Bureau for Agricultural Services of Cirenaica, Bengasi.

Platyedra gossypiella. Is new for Cirenaica. The writer has bred it from caterpillars obtained from cotton bolls coming from the experimental plots of Rahaba.

Spalax aegyptiacus. This rodent cuts the main roots of trees and shrubs at a depth of 30 centimetres or more. To begin with the damage escapes notice because the injured plant continues to grow for some time during the cold season. *S. aegyptiacus* does not hibernate in Cirenaica ; it tunnels to a depth of two metres. At Sleaia, near Barce, where the damage to almond trees was considerable, the writer experimented against the live animals with whole wheat treated with 5 % of zinc sulphide, sodium arsenate and ' Urania '. The action of all these poisons was equally slow and effective, causing death after about seven hours. In consequence of these results control is being tried with the poisons ; in the spring the experiments will be extended to include gases.

Morocco (French Zone) : Movements of Swarms of *Schistocerca gregaria* (1).

The bulk of the swarms of desert locusts which were massed in the region of Tamanar and Gloua flew east and invaded the districts of East Marrakech, Azilal, Demnat and Tadia.

A few small swarms reached Mamora and 25 km N. W. of Meknès but caused no serious damage.

On 15 February two small swarms alighted in the territory of Agadir 22 km S. E. of Tamanar.

In the region of Marrakech a swarm which had alighted on 16 February in the Ourika, 40 km S. E. of Marrakech, on the 18th came to ground at Tamesiout, 36 km S. E. of Marrakech.

A sparse swarm passed over Demnat on the 18th flying east.

In the Tadla a swarm coming from the west alighted on the 16th 20 km east of Dar Ould Zidouh.

In the Gharb two very dense but small swarms alighted on the 17th, one 7 km east of Kénitra, the other 7 km S. E. of Kénitra, and remained during the 18th.

In the region of Meknès a small swarm coming from the east alighted on the 17th 32 km N. W. of Meknès.

The swarm reported 40 km S. E. of Marrakech alighted on the 19th at Djebel Tasserimont, 34 km S. E. of Marrakech. Catching was taken in hand.

A swarm reported 35 km S. E. of Marrakech was completely destroyed on the 21st by cold and rain.

In the region of Mogador a small red swarm alighted on the 21st 16 km north of Tamanar.

The swarms previously reported in the vicinity of Kénitra moved east on the 23rd and alighted at Sidi Yahia, Gharb, covering 40 sq. km. Copulation began.

A swarm of little importance passed the night of February 21-22 at Ouled Smaïl, 10 km S. W. of Kasbah-Tadla, and flew N. E. on the 23rd.

In the region of Azilal a large swarm alighted in the Antifa tribe, extending 16 km west, 23 km east and 36 km north of Azilal.

On 24 February a swarm coming from El Kansara passed 16 km to the south of Sidi Slimane.

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(1) Communication from Mr. P. Régnier, Chief of the Crop Protection of Morocco (French Zone) at Rabat, transmitted to the Institute by Mr. Delassus, Crop Protection Inspector of Algeria and Chief of the Regional Locust Station at Algiers.

In the region of Azilal a large swarm remained on the 24th 25 km N. E. of Azilal and was practically wiped out by bad weather.

The swarms previously reported at Sidi Yahia circled about this centre and its neighbourhood on the 24th, causing serious damage.

In the region of Tamanar a swarm of 6 × 4 km coming from Ida ou Tanant alighted on the 23rd 26 km south of Tamanar.

In the region of Mogador a red swarm alighted on the 21st 28 km E. S. E. of Mogador and departed east on the 22nd.

Another swarm on the same date alighted 16 km north of Tamanar.

In the region of Azilal a swarm coming from the S. W. alighted on the 26th at Tisgui, Aït Attab, 26 km north of Azilal.

In Tadia a very small swarm alighted on the 26th 6 km S. E. of Sidi Lamine.

In Gharb the swarm reported previously at Dar bel Hamri flew on the 25th towards Koebia, passing over the valley 14 km S. W. of Sidi Slimane.

In the region of Marrakech the swarms reported 13 km N. E. of Demnat moved their position and alighted on 25 February 12 km N. W. of this centre.

In Sous some swarms remained from 22 to 26 February 40 km N. E., 36 km N. E. and 20 km N. E. of Taroudant and caused damage to the olive plantations.

In the region of Mogador a swarm of 3 × 1 km alighted on 26 February 24 km south of Mogador and the next day 22 km S. S. E. of this locality.

In the region of Marrakech a swarm of 4 × 2 km alighted on the 28th 34 km south of Marrakech and stayed there on the 29th. The swarms reported 12 km N. W. of Demnat alighted 5 km to the north and 3 km W. S. W. of the locality.

A large swarm alighted on the 28th 26 km N. W. of Azilal.

In Tadla a swarm of 5 × 2 km alighted on the 28th 24 km east of Boujad.

In the region of Mogador a red swarm of 6 × 4 km alighted on the 28th 14 km south of Tamanar.

A small pink swarm alighted the same day 26 km S. E. of Mogador and was kept to the ground by bad weather.

In the region of Marrakech a swarm alighted on 28 February 10 km west of Demnat ; a second 20 km west of Demnat ; a third 23 km N. W. of Demnat ; this last flew west on the 29th. On 24 February a small swarm alighted 28 km west of Demnat.

The swarm reported at Tisgui, Aït Attab, 26 km N. W. of Azilal, moved to 24 km west of Azilal and 17 km W. S. W. of Azilal.

In Tadla a swarm coming from the west alighted on the 29th in the evening 28 km E. S. E. of Dar Ouled Zidouh.

In Gharb the swarms reported remained in the same places and eggs were deposited over the whole border of the Mamora between El Menzeh (10 km S. W. of Sidi Yahia) and El Tleta (2 km south of Sidi Yahia).

Collecting was actively carried out.

Italian Somaliland : Desert Locusts *(Schistocerca gregaria)* (1).

During the last quarter of 1931 the Colony was invaded by dense swarms of locusts, from Rocca Littorio as far as Afmadù.

On 20 October the first swarm was reported from Belet Uen, coming from the north-west and flying south-east.

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(1) Communication from the official correspondent of the Institute, Dr. R. GUIDOTTI, Chief of the Agricultural Bureau of Italian Somaliland, transmitted by the Government of the Colony.

On 1st November a great quantity of locusts came to ground in the region between Bardera and Gioheren and departed shortly afterwards towards the south-west.

On 2 and 3 November locusts were reported in the regions of Merca, Audegle and Afgoi ; these swarms came from the north and were flying south.

Others were reported the same day at Dolo and at Lugh, flying towards Bardera. On the 5th laying began in this locality and along the caravan route Galadi-Dudub-Dagaria (Commissariat of Mudug).

Other swarms coming from the west and flying north-east passed over the regions of Alessandra and Baidoa. At Baidoa the flight of the swarm lasted two hours and was then dissipated by a heavy shower and violent wind.

The following day other swarms flying south passed over Oddur ; laying was reported near Genale and on the right bank of the Scebeli in the region of Corvodea.

From the Residence of Afmadù it was reported on 7 November that from information received it appeared that the adjoining territory of Kenya was also invaded by locusts.

On the 10th swarms flying east and coming from the west passed over Alessandra and Gelib.

On 11 November laying was reported in the dunes between Merca and Vittorio d'Africa, and on the 12th large swarms coming from the north-east and flying south-west.

Hatching began the same day in the region to the north of Mahaddei.

Laying occurred also on 13 November at Afgoi Addo and at Bulo Burti, and on the 23rd hatching began in the district of Genale.

From 23 to 27 December swarms flying north-east passed over the localities of Far Uama, Margherita and Gelib. On 29 December the right bank of the Giuba was invaded in the vicinity of Margherita by large swarms which alighted on the native ' sciambe ' and caused serious damage to the maize crops and then flew in the direction of Gelib which they passed over during the morning of the 30th, continuing their flight along the river.

The Commissariats and Agricultural Centres endeavoured with the means at their disposal to combat the invasion. By edicts and continual and repeated orders to the chiefs and important natives the native population was convinced of the absolute necessity of control measures and satisfactory results were thus obtained.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany (1). — The Ordinance of 23 February 1932, with the purpose of preventing the introduction of the Colorado beetle (*Leptinotarsa decemlineata*) from France, prohibits importation and transit of potatoes, tomatoes, aubergines, strawberries, plants with roots covered or not covered with soil, tubers, bulbs, rhizomes

(1) Communication from the Biologische Reichsanstalt für Land- und Forstwirtschaft, Berlin-Dahlem, official correspondent of the Institute.

and all other subterranean parts of plants, and of peelings or other waste material of these products, of sacks or any other object which has been used for packing or preserving these products.

Also during the period from 15 March to 14 November of each year importation and transit of fresh vegetables and other such plants, of the aerial parts of plants, with the exception of fruits, are allowed only subject to the following conditions :

(*a*) these products must have grown at a distance of at least 200 km from the limits of the territory infested by the Colorado beetle ;

(*b*) each package must be accompanied by a sanitary certificate conforming to the model annexed to the present Ord. issued by an official of the French Phytopathological Service and stating that the products contained in the package have been inspected and found free from the Colorado beetle and that they fulfil the conditions specified in paragraph (*a*).

France. — In view of the risks to plantations of fruit and forest trees from the importation into France of the San Jose scale (*Aspidiotus perniciosus*), the presence of which has just been found in Paris on fruits coming from the United States of America, a Decree of 8 March 1932 provides as follows :—

Art. 1. — The entry into and transit in France of living plants and parts of living plants, including fresh fruits, trees and shrubs, nursery garden products, cuttings and other plant parts, originating and coming from the United States of America, are forbidden.

The same applies to other countries in which the presence of the San Jose scale has been ascertained :— Australia, Canada, China, Japan, New Zealand.

This applies also to cases, sacks or other packings serving or having served to transport the above-mentioned objects.

Art. 2. — Importation into France of fresh fruits coming from countries other than those specified in Art. 1 is authorised only if the consignments are accompanied by a statement from the competent authority of the country of origin indicating the place of production.

Art. 3. — Decrees from the Minister of Agriculture will indicate if need arises the countries other than those mentioned in Art. 1 above to which the prohibition prescribed in the Article shall apply.

Art. 4. — By modification of the prohibition prescribed in Art. 1 the following may be authorised :—

(1) Importation of certain classes of fruits treated in the country of origin in such a way as to ensure that they are not carrying *A. perniciosus* ; such importation being effected only in the conditions and by the custom offices fixed by Decree of the Minister of Agriculture in consultation with the ' Comité consultatif des Epiphyties ' ;

(2) Importation of living plants, parts of living plants and fresh fruits intended for study and research, having a permit issued by the Minister of Agriculture, who will arrange the conditions on which such importation may be permitted.

Art. 5. — The Decree of 30 November 1898 relating to *A. perniciosus* is hereby annulled. (*Journal Officiel de la République Française*, Paris, 9 mars 1932, LXIV^{eme} année, n° 58, p. 2526-2527).

*** By Ministerial Decree of 15 March 1932 importation of consignments of potatoes grown in zones contaminated with the Colorado beetle [*Leptinotarsa decemlineata*] or in protection zones is authorised subject to the following conditions :—

(1) That the tubers are healthy, clean and have been properly graded and cleaned in the farm buildings, cellars or storehouses ;

(2) That the consignments shall be inspected by the Plant Protection Service. The potatoes may be loose, in cases or in sacks ; the packings must be clean and in good condition.

Potatoes picked in fields where the presence of the Colorado beetle has been reported as also potatoes rejected at the time of sorting may not in any circumstances be conveyed outside the contaminated or protection zones.

This regulation concerning the transport of potatoes is applicable during the period beginning 1st October of each year and terminating on 15th May of the following year, unless any alteration of the dates is prescribed by Ministerial Decree in case of exceptional circumstances.

Exportation of potatoes grown in the contaminated or protection zones remains strictly prohibited. (*Journal Officiel de la République Française*, Paris, 16 mars 1932, LXIV[ème] année, nº 64, p. 2735).

*** A Ministerial Decree of 15 March 1932 provides as follows :—

Art. 1. — Entry into France of fresh fruits grown in and coming from the countries specified in Art. 1 of the Decree of 8 March 1932 is authorised subject to the following conditions :—

(1) That the said products are accompanied by a certificate of sanitary inspection issued by the competent authorities of the country of origin guaranteeing absolutely that the fruits are not carrying the San Jose scale [*Aonidiella perniciosa*] ;

(2) That sanitary inspection shall be effected on arrival by an inspector of the Plant Protection Service who will accord free right of entry if the fruits are found healthy or if not will order their destruction or return.

Art. 2. — Citrus fruits are admitted into France until further order on the presentation of a sanitary certificate in accordance with Art. 1 of the present Ministerial Decree.

Art. 3. — The transit of the fresh fruits specified above is forbidden in a loose state but allowed in packages such as boxes, barrels, sacks, cartons or other similar packages.

Entry into and transit in France of these fruits may take place only by the ports of Havre, Bordeaux, Marseilles, Dunkerque, and by the custom office of Paris.

Temporary measures applicable to fresh fruits in storage or transit at the moment of publication of the Decree of 8 March 1932.

Art. 4. — All fresh fruits other than apples and pears, are admitted without special inspection and without the certificate specified in Art. 1 of the present Ministerial Decree.

Apples and pears presented in small cases and in paper wrappings coming from the United States (Washington, Oregon and California) are admitted without formalities. Similar products coming from the United States (Virginia, West Virginia, New York, New Jersey) are admitted subject to sanitary inspection on arrival.

Apples and pears presented in any other packages are admitted subject to sanitary inspection on arrival.

Fruits found to be contaminated will be destroyed or returned at the expense of the importer. (*Ibid.*, p. 2735-2736).

Italy. — The Royal Decree Law No. 197 of 19 March 1932 gave full and entire effect to the Convention of Commerce and Navigation between Spain and Italy settled at Rome on 15 March 1932.

'The High Contracting Parties covenant not to impede in any way the mutual trade of the two countries by any prohibitions or restrictions of importation, exportation or transit'. Exceptions to this regulation, in so far as they are ap-

plicable to all countries or to countries in similar conditions, may be allowed only in the cases specified in Art. 7 of the Convention, *inter alia* ' in consideration of sanitary policy and in view of the protection of animals and useful plants against diseases, insects and harmful parasites, and particularly in the interests of public health and in conformity with the international principles adopted on this subject '.

It being understood that this regulation in so far as it concerns importation into Italy of Spanish bananas shall be interpreted in the sense that the sanitary policy of Italy shall be exercised within the limits and under the terms and rulings of the International Convention for Plant Protection signed at Rome on 16 April 1929 [see this *Bulletin*, 1929, No. 4, pp. 50-55)].

The Convention of Commerce and Navigation between Spain and Italy came into force provisionally on 30 March 1932. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 26 marzo 1932, anno 73°, n. 71, pp. 1426-1434 ; 29 marzo 1932, n. 73, p. 1488).

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